

Safety data for hazardous substances and preparations according to EC regulation 91/155/EEC

Dated April 18, 2006

1. Product and Company Identification

Trade name: RadioShack

AUDIO CASSETTE HEAD CLEANER – 44-1162A

1.1 description of preparation

Propanol-2

producer/supplier

Taiwan Bor Ying Corp.

street / P.O. Box

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nationality / zip / city

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Information:

1-800-THE-SHACK (RadioShack)

2. Composition / Information on Ingredients

2.1 general characterisation

solvent

2.2 hazardous components

CAS No.	description	weight - %	symbolR-sent.	
67-63-0	2-Propyl alcohol	100	F	11

3. Possible dangers

3.1 description of dangers:

flammable

3.2 special information on danger for people and environment: -

4. First aid measures

4.1 general information

remove affected person from dangerous area and lay down.

remove clothes touched by the product.

supply fresh air or oxygen

4.2 inhaling

supply fresh air or oxygen Consult emergency doctor if complaints are permanent.

in case of unconsciousness use stable lateral-position for transport.

4.3 skin contact

wash off with water and soap immediately and rinse thoroughly.

in case of permanent skin irritation consult doctor.

4.4 eye contact

rinse open eyes under running water for various minutes. Consult doctor.

4.5 swallowing

rinse out mouth and drink water afterwards, do not induce vomiting and consult a doctor immediately.

4.6 information for the doctor

danger of aspiration when swallowing or vomiting.

5. Firefighting measures

5.1 suitable extinguishing agents:

CO₂, firefighting powder or spray jetted water. Fight larger fires with spray jetted water or alcohol resistant foam.

5.2 extinguishing agents not suitable for safety reasons:

Do not use a solid stream of water, since the stream will scatter and spread the fire.

- 5.3 **special dangers caused by the material or the preparation, its combustion product or developing gases:**
development of explosive air-gas mixtures possible.
carbon monoxide can develop in a fire.
- 5.4 **special protection equipment for firefighting**
wear breathing apparatus independent from the circulating air.
wear a complete protection suit.
depending on size of the fire, coordinate with fire in the surroundings.
- 5.5 **additional information**
cool endangered containers with sprayed water.
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6. Accidental Release Measures

- see point 8 + 13.
- 6.1 **personal safety measures:**
wear protective clothing. Keep unprotected people away.
provide for sufficient ventilation.
keep away ignition sources.
avoid contact with eyes and skin.
- 6.2 **environmental protection measures:**
do not introduce larger quantities into sewerage system or into waters.
inform responsible authorities when sewerage system or waters are affected.
inform responsible authorities when soil is affected.
- 6.3 **cleaning methods:**
take up with liquid-absorbing material (sand, infusorial earth, acid binder, universal binder).
provide for sufficient ventilation.
dispose contaminated waste material according to point 13.
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7. Storage and handling

- 7.1 **handling**
- 7.1.1 **information for safe handling:**
cool and dry storage in tightly closed bin.
provide for good ventilation/suction filter at the workplace.
provide for good ventilation at ground level (vapor is heavier than air).
- 7.1.2 **information on protection of fire and explosion:**
flammable liquid. Vapor is heavier than air and can build explosive mixtures with air.
Cool endangered containers with water.
Keep away ignition sources and do not smoke.
take measures against electrostatic charging.
- 7.2 **storage**
- 7.2.1 **requirements for storage rooms and containers:**
store in a cool place.
provide for solvent-resistant and tightly closing floor.
- 7.2.2 **information for materials stored together:**
separate storage of inflammable and explosive materials and objects
- 7.2.3 **special storage conditions:**
keep container tightly closed. Cool storage.
protect from heat and direct sun exposure.
heating leads to increased pressure and danger of bursting.
store container in a room with good ventilation.
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8. Exposure Controls / Personal Protection

- 8.1 **additional information for the arrangement of technical plants:**
see point 7
- 8.2 **components with limit values that are relevant to the workplace**

CAS-No.	description of material	type	value	unit
67-63-0	2-Propanol	MAK	500	mg/m ³
			200	ml/m ³
		TRGS 900	980	mg/m ³
			400	ml/m ³

additional information: -

8.3 personal protection equipment

8.3.1 breathing protection:

wear protective mask in case of regular exposure and inappropriate ventilation.
gasfilter A 2

8.3.2 hand protection:

wear solvent-resistant protective gloves in case of regular exposure.

8.3.3 eye protection:

wear tight protective glasses in case of regular exposure.

8.3.4 body protection: n.a.

8.3.5 general protection and hygiene measures:

take the usual measures for the use of chemicals.

take off dirty, soaked clothes.

keep away from food, drinks and food stuff.

do not eat, drink and smoke at work.

wash your hands and use protective skin lotion before breaks and before end of work.

avoid eye and skin contact.

do not inhale gases / vapors / aerosols.

9. Physical and chemical properties

9.1 appearance/smell:

state:	liquid
color:	transparent
odor:	alcoholic

9.2 data relevant for safety

pH value, undiluted:	≈7,0
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change of state

boiling point/boiling area (in °C):	82
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melting point/melting area (in °C):	- 89,5
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flammability

flaming point (°C):	12 (in closed crucible)
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ignition temperatur:	425 °C
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fire-fostering properties

danger of explosion:	product is not explosive, but the development of explosive air-vapor mixtures is possible.
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explosion limits:

lower explotsion limit:	2,0 (Vol.%)
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upper explosion limit:	12,0 (Vol.%)
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steam pressure (mbar):	48
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density 20°C (g/ cm ³):	0,785
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solubility

water solubility:	mixable
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viscosity, dyn. (mPa × s):	2,43
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content of solvent (weight.%)	100 %
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10. Stability and reactivity

10.1 conditions to be avoided

warmth, flames

10.2 material to be avoided

reaction with strong oxidizing agents and strong acids.

10.3 hazardous decomposition products

carbon monoxide

11. Information concerning toxicology

11.1 toxicologic tests

accute toxicity

LD₅₀ / LC₅₀ - values relevant for classification:

component	type	value	species
2-Propanol	orally	4570 mg / kg	rat
	dermally	13400 mg / kg	rabbit
	inhaling	30 mg / L / 4 h	rat

primary irritative effects:

on the skin:

light effects

in the eye:

light effects

sensitizing effects:

sensitizing effects possible

subacute to chronic toxicity:

regular exposure can damage the liver

additional toxicologic information:

Inhaling of concentrated vapors as well as oral taking can lead to narcotic conditions.

11.2 experience with humans:

long or regular contact can extract fat from the skin.

High concentration can provoke an contact eczema

12. Information on ecology

1. information about elimination (persistency and decomposability):

easy biological decomposition of the product.

2. behavior in environmental compartments: n.d.a.

3. ecotoxic effects

aqueous toxicity

fish toxicity:

100 mg/l/48h

LC 50 (leuciscus idus, DIN 38412, part 15)

daphnia toxicity:

100 mg/l/24h

EC 50 (daphnia magna, DIN 38412, part 11)

behavior in sewage plants:

disturbances of the decomposition activity of activated sludge cannot be expected if small quantities are correctly introduced into adapted biological sewage plants.

general information

hazard category for water:

WGK 1

do not introduce larger undilluted quantities into ground water, sewerage system or into waters.

13. Information on disposal

13.1 product:

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13.2 recommendation:

comply with regulations of local authorities.
do not introduce larger undilluted quantities into ground water, sewerage system or into waters.

13.3 waste key number:

553 15

labeling:

methanol and other liquid alcohols

13.4 for uncleaned packaging:

safe handling: empty container completely. Do not make holes into uncleaned containers, do not cut or weld them. Remains can possibly cause an explosion.

14. Transport regulations

14.1 road- / rail transport (GGVS/ADR / GGVE/RID)

class:

3

number / letter:

3b

warning sign - danger - No.:

3

material - / UN - No.:

1219

description of good

1219, 2-Propanol

comment: for regulations concerning reduced quantities see RN 2301a.

14.2 transport by sea ship(GGVSee / IMDG)

class:

3.2

	page:	3244
	packaging group:	II
	EmS-No.:	3-06
	MFAG :	305
	technically correct name:	isopropanol
	marine pollutant:	no
14.3	transport by plane (ICAO - TI / IATA-DGR)	
	class:	3
	packaging group:	II
	technically correct name:	isopropanol

15. Regulations

labeling regulation on hazardous material including EC regulations (67/548/EEC as well as 88/379/EEC)

symbol:	F	flammable
R-sentences:	11	flammable
S-sentences:	2	keep out of the reach of children
	51	use only in adequately ventilated rooms
	7	keep container tightly closed
	16	Keep away ignition sources a. do not smoke.

national regulations

accident regulation:	2
TA-air:	III
VbF:	B
hazard category for water:	WGK 1
comply with limitations of use / limitations of distribution according to § 15 Gef.Stoff-VO.	
comply with accident instructions BG: M 017 „solvents“.	

16. additional information

the information refers to the product in its condition on delivery.

department issuing data sheet: Dep. Chemicals

Legend:

n.a. = not applicable / n.a. = not available / n.t. = not tested / n.d.a. = no data available / n.c.d. = not called differently

VbF = regulation on inflammable liquids

MAK = maximum concentration at workplace in mg/m³ = ppm

WGK1 = slightly endangering water

Taiwan Bor Ying Corp.

The data listed here is supposed to describe the product with respect to the necessary safety precautions. They do not aim at establishing certain properties, and they are based on the current level of our knowledge. No liability.